

AMENDMENTS TO THE DRAWINGS:

The attached sheet of drawing includes changes to Figure 2 adding a label indicating that Figure 2 relates to "Prior Art."

Attachments: Replacement Sheet for Figure 2.

REMARKS

In response to the Office Action mailed July 25, 2006, Applicants respectfully requests the Office to enter the following amendments and consider the following remarks. By this response, Applicants amend claims 3, 6, 10, cancel claims 23-25 without prejudice or disclaimer, and add new claims 26-29. After entry of this paper, claims 1-22 and 26-29 are now pending in this application. By this response, Applicants also amend Figure 2 as indicated in the replacement sheet. A label indicating that Figure 2 relates to prior art has been added to Figure 2.

The Examiner rejected claims 1, 5, 7, 10-12, 15-17 as allegedly anticipated by Kim et al., U.S. Pat. No. 6,175,592 ("Kim") under 35 U.S.C. §102. The Examiner rejected claims 2, 4, 8-9, 13-14, and 18-19 as being obvious over Kim in view of Nakajima et al. U.S. Pat. No. 6,243,421 ("Nakajima"). The Examiner rejected claims 20-22 as being obvious over Kim in view of Jahanghir et al. U.S. Pat. No. 6,141,457 ("Jahanghir").

The Examiner would allow claims 3 and 6 if each were rewritten in independent form.

Objections to claims 3 and 6

The Examiner would allow claims 3 and 6 if each were rewritten in independent form. Claims 3 and 6 have been amended to include the features of the claims from which each depends and now stand in independent form. Applicant respectfully requests allowance of these claims.

§102 Rejections of Claims 1, 5, 7, 10-12, 15-17

Claims 1, 5, 7, 10-12, 15-17 stand rejected as being anticipated under §102 by Kim. In order for a claim to be rejected under 35 U.S.C. §102, "[a]n 'anticipating'

reference must describe all of the elements and limitations of the claim in a single reference, and enable one of skill in the field of the invention to make and use the claimed invention.” See *Merck & Co., Inc. v. Teva Pharms. USA, Inc.*, 347 F.3d 1367, 1372, 68 USPQ2d 1857, 1861 (Fed. Cir. 2003). Kim does not teach all of the limitations of the instant claims, therefore it cannot anticipate the claims.

With respect to claim 1, Kim does not teach “performing inverse discrete cosine transform IDCT decoding on I-picture data at a first resolution,” “performing IDCT decoding on P-picture data at the first resolution” or “performing IDCT decoding on B-picture data at a second resolution, the second resolution being lower than the first resolution,” as recited in claim 1. In none of the embodiments described in Kim is there a discussion of decoding the I-picture and P-picture data at a first resolution and the B-picture data at a second resolution that is lower than the first resolution. In each of the embodiments described in Kim at col. 4, lines 16-67 and col. 5, line 1 to col. 7, line 20, there is discussion of performing decoding on a signal at lower resolution *than the original signal*. See, e.g., *Kim*, col. 6, lines 1-9. Kim, however, does not teach or suggest performing decoding on each of I-picture, P-picture, and B-picture data separately, let alone decoding one or more of them at different resolutions. Since Kim does not teach decoding each of the I-picture, P-picture, and B-picture data at different resolutions, Kim could not possibly teach “performing inverse discrete cosine transform IDCT decoding on I-picture data at a first resolution,” “performing IDCT decoding on P-picture data at the first resolution” or “performing IDCT decoding on B-picture data at a second resolution, the second resolution being lower than the first resolution,” as recited

in claim 1. Since one or more of the features of claim 1 are not taught by Kim, Kim does not anticipate claim 1.

Regarding claims 7 and 10, although they are not identical to each other, each recites “performing IDCT decoding on I-picture and P-picture data at a first resolution” and performing IDCT decoding “on B-picture data at a second resolution lower than the first resolution.” As noted above, Kim does not teach performing decoding at different resolutions on I-picture, P-picture, and B-picture data, let alone performing decoding on the B-picture data at a second resolution that is lower than the decoding on the I-picture and P-picture data. Since one or more of the features of each of claims 7 and 10 are not taught by Kim, Kim does not anticipate claim 7 or claim 10.

Regarding claims 11 and 15, although the two claims are not identical, each recites “performing inverse discrete cosine transform on a sub-portion of the DCT coefficients” in order to obtain a block of pixel data “equal in size to the sub-portion if the block of image data represents a first type of picture.” Neither the cited portion of Kim nor any other portion of Kim teaches such a *sub* block of the DCT coefficients, let alone performing IDCT on the sub portion. Kim teaches, instead, transforming the “DCT coefficients to pixel values in the spatial domain” using, e.g., 8x8 blocks. *Kim, col. 4, lines 47-53*. As Kim does not teach “sub-portion of the DCT coefficients,” it cannot possibly teach “performing inverse discrete cosine transform on a sub-portion of the DCT coefficients” in order to obtain a block of pixel data “equal in size to the sub-portion if the block of image data represents a first type of picture.” Since one or more of the features of each of claims 11 and 15 are not taught by Kim, Kim does not anticipate claim 11 or claim 15.

Claims 5, 12, 16-17 each depend directly or indirectly from claims 1, 11, or 15 and therefore incorporate all of the features of the claims on which they depend. As such, each of claims 5, 12, 16-17 are patentable for at least the reasons discussed above with respect to the corresponding independent claim. Furthermore, each dependent claim is separately patentable. For the sake of brevity, the Applicants will not present these additional arguments here, but reserve the right to present these arguments at a later time.

§103 Rejections of Claim 2, 4, 8-9, 13-14, 18-19

The Examiner rejected claims 2, 4, 8-9, 13-14, 18-19 under 35 U.S.C. §103(a) as being unpatentable over Kim in view of Nakajima. Applicants respectfully traverse the rejection.

As noted in the Manual of Patent Examination Procedure (MPEP) § 2143, an obviousness rejection must “establish a prima facie case of obviousness [based on] three basic criteria . . . First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations.”

The Examiner has not met the burden for proving a prima facie case of obviousness. Even if the references were properly combinable, however, neither Kim nor Nakajima, nor a combination of the two, would teach or suggest all of the elements of the claims.

Claims 2 and 4 depend directly or indirectly from claim 1 and are therefore patentable over Kim for at least the reasons stated above. Nakajima does not remedy this deficit. As noted above with respect to claim 1, Kim does not teach “performing inverse discrete cosine transform IDCT decoding on I-picture data at a first resolution,” “performing IDCT decoding on P-picture data at the first resolution” or “performing IDCT decoding on B-picture data at a second resolution, the second resolution being lower than the first resolution,” as recited in claim 1 and inherited in claims 2 and 4. Nakajima teaches “an apparatus for decoding coded video data which is capable of decreasing storage size of its frame memory while attenuating the drift noise and minimizing lowering of the resolution during reconstruction . . .” *Nakajima, col. 1, lines 51-56*. Nowhere in Nakajima is I-picture, P-picture, or B-picture data mentioned, let alone “performing IDCT decoding” on each of the types of picture data. Therefore, Nakajima cannot possibly teach performing IDCT decoding on each type of picture data at two different resolutions, let alone “performing inverse discrete cosine transform IDCT decoding on I-picture data at a first resolution,” “performing IDCT decoding on P-picture data at the first resolution” or “performing IDCT decoding on B-picture data at a second resolution, the second resolution being lower than the first resolution.” Since one or more features of each of claims 2 and 4 are not taught by either Kim or Nakajima, a combination of the two cannot possibly teach either claim. Therefore a combination of Kim and Nakajima does not render obvious claim 2 or claim 4. Furthermore, each of the claims is also patentable for other reasons. The Applicants reserve the right to argue these separately patentable features at another time.

Claims 8 and 9 depend directly or indirectly from claim 7 and are therefore patentable over Kim for at least the reasons, as stated above, that Kim does not teach “performing IDCT decoding on I-picture and P-picture data at a first resolution” and performing IDCT decoding “on B-picture data at a second resolution lower than the first resolution.” Nakajima does not remedy this deficit. As noted above, since Nakajima does not teach use of I-picture, P-picture, or B-picture data, it cannot possibly teach “performing IDCT decoding” on each of these types of picture data, let alone performing such decoding at the first resolution and lower second resolution as recited in claim 7 and inherited in claims 8 and 9. Therefore a combination of Kim and Nakajima does not render obvious claim 8 or claim 9. Furthermore, each of the claims is also patentable for other reasons, which Applicants reserve the right to argue at another time.

Claims 13-14 and 18-19 each depend directly or indirectly from claims 11 or 15 and are therefore patentable over Kim for the reasons stated above with respect to the claim on which each depends. Specifically, Kim does not teach “performing inverse discrete cosine transform on a sub-portion of the DCT coefficients” in order to obtain a block of pixel data “equal in size to the sub-portion if the block of image data represents a first type of picture,” as inherited in claims 13-14 and 18-19 from the corresponding independent claim. Nakajima does not remedy this deficit. Nakajima teaches “[t]he [8x8] DCT coefficients [being] fed to an inverse DCT transformer 3 where they are converted to [8x8] pixels of differential pixel data.” *Nakajima*, col. 2, lines 55-58. Nakajima does not teach “performing inverse discrete cosine transform on a sub-portion of the DCT coefficients” in order to obtain a block of pixel data “equal in size to the sub-portion if the block of image data represents a first type of picture.” Since neither Kim

nor Nakajima teach at least this feature inherent in claims 13-14 and 18-19, a combination of the two cannot possibly teach these claims.

§103 Rejections of Claims 20-22

The Examiner rejected claims 20-22 as being unpatentable over Kim in view of Jahanghir. Claim 20 includes “performing inverse discrete cosine transform IDCT decoding on I-picture data at a first resolution,” “performing IDCT decoding on P-picture data at the first resolution” or “performing IDCT decoding on B-picture data at a second resolution, the second resolution being lower than the first resolution.” As noted above, with respect to claim 1, Kim does not teach these features. Jahanghir does not remedy this deficit. Jahanghir teaches processing “image data . . . with an [IDCT] to cause the IDCT processed image data to be generated, wherein the IDCT processed image data has a relatively lower definition than the image data.” *Jahanghir*, col. 4, lines 51-55. Jahanghir does not teach I-picture, P-picture, B-picture data, nor does it teach performing IDCT decoding on the I-picture and P-picture data at a first resolution and on the B-picture data at a second, lower resolution. Since neither Kim nor Jahanghir teaches at least these features of claim 20, Kim in view of Jahanghir cannot possibly teach or render obvious claim 20.

Claims 21 and 22 each include “performing inverse discrete cosine transform on a sub-portion of the DCT coefficients” in order to obtain a block of pixel data “equal in size to the sub-portion if the block of image data represents a first type of picture.” As noted above, Kim does not teach these features. Jahanghir does not remedy this deficit. Jahanghir teaches processing “image data . . . with an [IDCT] to cause the IDCT processed image data to be generated, wherein the IDCT processed image data has a

relatively lower definition than the image data.” *Jahanghir*, col. 4, lines 51-55. *Jahanghir* does not teach “performing inverse discrete cosine transform on a sub-portion of the DCT coefficients” in order to obtain a block of pixel data “equal in size to the sub-portion if the block of image data represents a first type of picture.” Since neither Kim nor *Jahanghir* teaches at least this feature inherent in claims 21 and 22, a combination of the two cannot possibly teach these claims.

Conclusion

In view of the foregoing amendments and remarks, Applicants respectfully request reconsideration and reexamination of this application and the timely allowance of the pending claims.

Please grant any extensions of time required to enter this response and charge any additional required fees to our deposit account 06-0916.

Respectfully submitted,

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